



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

July 19, 2010

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review

FROM: *M. Humphrey*
Marvelyne Humphrey, ESAT Regional Project Officer
Environmental Services Branch (6MD-H)

TO: Bret Kendrick ,Superfund Project Manager (6SF-TR)

Site : CIRCLE COURT GROUND WATER

Case#: 40275

SDG#: F3JJ4

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative.

If you have any questions regarding the data review report, please contact me at (281) 983-2140.



622139

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: July 16, 2010

TO: Marvely Humphrey, ESAT PO, Region 6 EPA

FROM: Wallace Doong, Data Reviewer, ESAT ^{WD}

THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT ^{DGJ by JG}

SUBJECT: CLP Data Review

Contract No.:	EP-W-06-030
TO No.:	018
Task/Sub-Task:	2-11
ESAT Doc. No.:	9018-211-0026
TDF No.:	6-10-045A
ESAT File No.:	0-0540

Attached is the data review summary for Case # 40275

SDG # F3JJ4
Site Circle Court Ground Water

COMMENTS:

I. LEVEL OF DATA REVIEW

Standard Review was performed for this data package.

II. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

The CCS and hardcopy review found this data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

The total number of sample results reviewed for this data package was 1,020. Some results were qualified because of the significant technical problem addressed below.

Samples F3JJ4, F3JJ7, and F3JK2 had low DMC recoveries.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099
ORGANIC REGIONAL DATA ASSESSMENT**

CASE NO.	40275	SITE	Circle Court Ground Water
LABORATORY	MITKEM	NO. OF SAMPLES	20
CONTRACT#	EP-W-05-030	MATRIX	Water
SDG#	F3JJ4	REVIEWER (IF NOT ESB)	ESAT
SOW#	SOM01.2	REVIEWER'S NAME	W. Doong
SF#	302DD2CA6V7	COMPLETION DATE	July 16, 2010

SAMPLE NO.	F3JJ2	F3JJ6	F3JK0	F3JK4	F3JK8
	F3JJ3	F3JJ7	F3JK1	F3JK5	F3JL1
	F3JJ4	F3JJ8	F3JK2	F3JK6	F3JL2
	F3JJ5	F3JJ9	F3JK3	F3JK7	F3JL3

DATA ASSESSMENT SUMMARY

TVOA

1. HOLDING TIMES	O
2. GC/MS TUNE/INSTR. PERFORM.	O
3. CALIBRATIONS	O
4. BLANKS	O
5. DMC/SURROGATES	M
6. MATRIX SPIKE/DUPLICATE/LCS	O
7. OTHER QC	N/A
8. INTERNAL STANDARDS	O
9. COMPOUND ID/QUANTITATION	O
10. PERFORMANCE/COMPLETENESS	O
11. OVERALL ASSESSMENT	M

O = Data had no problems.

M = Data qualified because of major or minor problems.

Z = Data unacceptable.

NA = Not applicable.

ACTION ITEMS:

AREA OF CONCERN: Samples F3JJ4, F3JJ7, and F3JK2 had low DMC recoveries.

**COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW**

CASE 40275 SDG F3JJ4 SITE Circle Court Ground Water LAB MITKEM

COMMENTS: This SDG consisted of 20 water samples for Trace VOA analysis following CLP SOW SOM01.2. The sampler designated samples F3JL2 and F3JL3 as field blanks and sample F3JJ5 for laboratory QC analyses. Field blank sample F3JL4, submitted with SDG F3JK9, was also associated with several samples in this SDG.

Standard data review was performed for this package as requested by the Region. The target compound of concern was trichloroethene with an action level of 5 µg/L. Trichloroethene was detected at concentrations above the CRQL in samples F3JJ4 and F3JK2, and the concentration in sample F3JJ4 was below the action level. Trichloroethene concentration in sample F3JK2 exceeded the action level and required dilution to bring the concentration within the calibration range. Three samples had low DMC recoveries.

Some results were qualified for three samples because of a DMC performance problem. ESAT's final data qualifiers in the DST indicate the technical usability of all reported results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

NOTE: THE FOLLOWING REVIEW NARRATIVE ADDRESSES BOTH CONTRACTUAL ISSUES (BASED ON THE STATEMENT OF WORK) AND TECHNICAL ISSUES (BASED ON THE NATIONAL FUNCTIONAL GUIDELINES). THE ASSESSMENT MADE FOR EACH QC PARAMETER IS SOLELY BASED ON THE TECHNICAL DATA USABILITY, WHICH MAY NOT NECESSARILY BE AFFECTED BY CONTRACTUAL PROBLEMS. THE ASSESSMENTS ARE DEFINED BELOW.

Acceptable = No results were qualified for any problem associated with this QC parameter.

Provisional = Some results were qualified because of problems associated with this QC parameter.

Unusable = All results are unusable because of major problems associated with this QC parameter.

1. Holding Times: Acceptable. All samples met the contractual and technical holding time criteria. One sample cooler was received at 7.5°C, which was above the SOW allowed temperature range (4 ± 2°C). In the reviewer's opinion, this problem did not affect result usability.

2. Tuning/Performance: Acceptable. The BFB analyses met GC/MS tuning criteria.

3. Calibrations: Acceptable. Target analytes met contractual and technical calibration criteria.

4. Blanks: Acceptable. The method and storage blanks met contractual criteria and were free from contamination.

**ORGANIC QA REVIEW
CONTINUATION PAGE**

CASE 40275 SDG F3JJ4 SITE Circle Court Ground Water LAB MITKEM

Field Blanks: Field blank sample F3JL2 contained acetone at a concentration below the CRQL. Acetone was not detected in any associated field samples. No TCL compounds were detected in other field blank samples.

5. Deuterated Monitoring Compounds (DMC's)/Surrogates:

Provisional. The DMC performance was contractually compliant although samples F3JJ4, F3JJ5MSD, F3JJ7, and F3JK2 had DMC recoveries below the QC limits. The low VDMC8 recovery for sample F3JJ5MSD did not affect MSD results. As a result of the low DMC recoveries, the reviewer qualified results for the following associated analytes as estimated and biased low: vinyl chloride in sample F3JJ4 and cyclohexane, methylcyclohexane, 1,2-dichloropropane, and bromodichloromethane in samples F3JJ7 and F3JK2 .

6. Matrix Spike/Matrix Spike Duplicate/Laboratory Control Sample (MS/MSD/LCS): Acceptable. The MS/MSD results met QC criteria for precision and %recovery.

7. Other QC: Not Applicable.

8. Internal Standards (IS): Acceptable. IS performance was acceptable for all analyses.

9. Compound Identity (ID)/Quantitation: Acceptable. The only target compound reported at concentrations above the CRQL was trichloroethene in samples F3JJ4 and F3JK2. Sample F3JK2 was diluted and reanalyzed because of a high trichloroethene concentration. No compound ID or quantitation problem was detected.

10. Performance/Completeness: The data package was complete. The DST included in this report is the final version.

11. Overall Assessment: Results are acceptable for 17 samples. Some results were qualified for samples F3JJ4, F3JJ7, and F3JK2 because of a DMC performance problem.

ORGANIC ACRONYMS

%D	Percent Difference
%RSD	Percent Relative Standard Deviation
ARO	Aroclors
BFB	4-Bromofluorobenzene
BNA	Base/Neutral and Acid
CADRE	Computer-Aided Data Review and Evaluation
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CF	Calibration Factor
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenylphosphine
DMC	Deuterated Monitoring Compound
DST	Data Summary Table
GC/ECD	Gas Chromatograph/Electron Capture Detector
GC/MS	Gas Chromatograph/Mass Spectrometer
GPC	Gel Permeation Chromatography
IC	Initial Calibration
INDA(B,C)	Individual Standard Mixture A (or B or C)
IS	Internal Standard
LCS	Laboratory Control Sample
LMVOA	Low/Medium Volatile Organic Analysis
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NFG	National Functional Guidelines
OTR/COC	Organic Traffic Report/Chain of Custody
PAH	Polynuclear Aromatic Hydrocarbon
PE	Performance Evaluation
PEM	Performance Evaluation Mixture
PEST	Pesticides
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RIC	Reconstructed Ion Chromatogram
RPD	Relative Percent Difference
RRF	Relative Response Factor
RRT	Relative Retention Time
RSCC	Regional Sample Control Center
RT	Retention Time
SDG	Sample Delivery Group
SDMC	Semivolatile Deuterated Monitoring Compound
SIM	Selected Ion Monitoring
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
SVOA	Semivolatile Organic Analysis
TCL	Target Compound List
TCX	Tetrachloro-m-xylene
TIC	Tentatively Identified Compound
TVOA	Trace Volatile Organic Analysis
VDMC	Volatile Deuterated Monitoring Compound
VOA	Volatile Organic Analysis

HEADER DEFINITIONS FOR ORGANIC EXCEL DST

CASE: Case Number

SDG: SDG Number

EPASAMP: EPA Sample Number

LABID: Laboratory File/Sample ID

MATRIX: Sample Matrix

ANDATE: Sample Analysis Date

ANTIME: Sample Analysis Time

CASNUM: Compound CAS Number

ANALYTE: Compound Name

CONC: Compound Concentration

VALDQAL: Region 6 Organic Data Validation Qualifier (see Organic Data Qualifier Definitions on the next page)

UNITS: Concentration Units

ADJCRQL: Adjusted Contract Required Quantitation Limit Value

SMPDATE: Sampling Date

STATLOC: Station Location

Disclaimer: ESAT verified the accuracy of the information reported in the Excel DST only for the following data fields: CASE, SDG, EPASAMP, MATRIX, ANALYTE, CONC, UNITS, VALDQAL, and ADJCRQL. The data qualifiers in the VALDQAL column indicate the technical usability of the reported results.

ORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U** Not detected at reported quantitation limit.
- N** Identification is tentative.
- J** Estimated value.
- L** Reported concentration is below the CRQL.
- M** Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination.
- R** Unusable.
- W** High biased. Actual concentration may be lower than the concentration reported.
- w** Low biased. Actual concentration may be higher than the concentration reported.
- F+** A false positive exists.
- F-** A false negative exists.
- UJ** Estimated quantitation limit.
- T** Identification is questionable because of absence of other commonly coexisting pesticides.
- C** Identification of pesticide or aroclor has been confirmed by Gas Chromatography/Mass Spectrometer (GC/MS).
- X** Identification of pesticide or aroclor could not be confirmed by GC/MS when attempted.
- *** Result not recommended for use because of associated QA/QC performance inferior to that from other analysis.

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 40275 SDG No. F3JJ4 SDG Nos. To Follow Mod. Ref No. Date Rec 07/02/10

EPA Lab ID:	MITKEM	ORIGINALS	YES	NO	N/A
Lab Location:	Warwick, RI 02886	CUSTODY SEALS			
Region:	6 Audit No.:	40275/F3JJ4	1. Present on package?	X	
Re_Submitted CSF?	Yes	No X	2. Intact upon receipt?	X	
Box No(s):	1	FORM DC-2			
COMMENTS:					
Item	Description	3. Numbering scheme accurate?	X		
		4. Are enclosed documents listed?	X		
		5. Are listed documents enclosed?	X		
FORM DC-1					
		6. Present?	X		
		7. Complete?	X		
		8. Accurate?	X		
TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s)					
		9. Signed?	X		
		10. Dated?	X		
AIRBILLS/AIRBILL STICKER					
		11. Present?	X		
		12. Signed?	X		
		13. Dated?	X		
SAMPLE TAGS					
		14. Does DC-1 list tags as being included?	X		
		15. Present?	X		
OTHER DOCUMENTS					
		16. Complete?	X		
		17. Legible?	X		
		18. Original?		X	
Over for additional comments.		18a. If "NO", does the copy indicate where original documents are located?	X		

Audited by: Wallace Doong
 Audited by: _____

Signature

Wallace Doong / ESAT Data Reviewer
 Printed Name/Title

Date 07/13/10
 Date _____

DC-2



USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 40275
DAS No:

R

Region: 6	Date Shipped: 6/24/2010	Chain of Custody Record		Sampler Signature: <i>Shelley J. Stratmann</i>
Project Code: 70848	Carrier Name: FedEx	Relinquished By	(Date / Time)	Received By
CERCLIS ID:	Airbill: 870536933856	1 Gary Hazelwood (6-24-10/1330hrs)		
Spill ID:	Shipped to: Mitkem Corporation 175 Metro Center Blvd. Warwick RI 02886 (401) 732-3400	2		
Site Name/State: Circle Court ESI/TX		3		
Project Leader: Gary Hazelwood		4		
Action: Expanded Site Inspection (ESI)				
Sampling Co: TCEQ				

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
F3JK1	Ground Water/ Shelley	L/G	VOA (5/7)	6-345245 (Ice Only), 6-345246 (Ice Only), 6-345247 (Ice Only) (3)	GW-40	S: 6/24/2010 10:00	MF3JK1	-
F3JK6	Ground Water/ Shelley	L/G	VOA (5/7)	6-345265 (Ice Only), 6-345266 (Ice Only), 6-345267 (Ice Only) (3)	GW-45	S: 6/24/2010 8:58	MF3JK6	-
F3JK7	Ground Water/ Shelley	L/G	VOA (5/7)	6-345269 (Ice Only), 6-345270 (Ice Only), 6-345271 (Ice Only) (3)	GW-46	S: 6/24/2010 8:45	MF3JK7	Field Duplicate
F3JK8	Ground Water/ Shelley	L/G	VOA (5/7)	6-345273 (Ice Only), 6-345274 (Ice Only), 6-345275 (Ice Only) (3)	GW-47	S: 6/24/2010 10:32	MF3JK8	-
F3JK9	Ground Water/ Shelley	L/G	VOA (5/7)	6-345277 (Ice Only), 6-345278 (Ice Only), 6-345279 (Ice Only) (3)	GW-48	S: 6/24/2010 11:20	MF3JK9	-
F3JL0	Ground Water/ Shelley	L/G	VOA (5/7)	6-345281 (Ice Only), 6-345282 (Ice Only), 6-345283 (Ice Only) (3)	GW-49	S: 6/24/2010 8:18	MF3JL0	-
F3JL4	Ground Water/ Shelley	L/G	VOA (5/7)	6-345294 (Ice Only), 6-345295 (Ice Only), 6-345296 (Ice Only) (3)	FB-03	S: 6/24/2010 9:02		Field Blank

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key: VOA = CLP TCL Volatiles	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

TR Number: 6-043013577-062410-0002

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

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